

Appl. No. 09/549,559
Amdt. Dated September 29, 2003
Reply to Office action of July 2, 2003
Attorney Docket No. P11914/040000-702
EUS/J/P/03-1084

REMARKS/ARGUMENTS

1.) Amendments

The Applicants have amended Claims 1, 6 and 24 to more particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Claims 1-29 remain pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

2.) Claim Objections

The Examiner objected to Claim 6. The Applicants have amended Claim 6 to correct an error in proper antecedent basis.

3.) Allowable Subject Matter

The Examiner objected to Claims 15-19 as being dependent upon a rejected base claim, but indicated such claims would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. The Applicants thank the Examiner for the indication of allowable subject matter, but decline to so amend Claims 15-19 at this time because the Applicants believe the base claim to be patentable over the cited references.

4.) Claim Rejections – 35 U.S.C. § 102(b)

The Examiner rejected Claims 1-5, 8, 12-14 and 20-27, under 35 U.S.C. §102(b), as being anticipated by United States Patent No. 5,848,105, issued to Gardner, *et al.* The Applicants traverse the rejection of those claims.

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Claim 1 recites:

1. Method of rejection of noise and interference from a received combination signal by estimation of the desired signal having in addition to noise and interference been distorted by a communication channel through which the modulated transmitted desired signal has been passed, comprising the following steps:
 - a) receiving a signal as a combination of noise, interference and the distorted desired signal through one or more antennas;
 - b) separating the received signal into a real and an imaginary part;
 - c) modeling the noise and interference component as a filtered process using a model for colored noise;
 - d) forming an equation for the received signal as a function of the desired signal distorted by the communication channel and the noise and interference component by utilizing the signal structure obtained in steps b) and c);
 - e) selecting of values for the filter parameters in said equation; and
 - f) estimating the desired signal by calculation from said equation by means of said filter parameters selected in the foregoing step. (emphasis added)

Claim 1 has been amended to provide that the step of modeling the noise and interference component as a filtered process uses a model for "colored" noise. In contrast to Applicants' invention, Gardner presumes that the interference signal has been generated by the same type of signal as the desired signal, but on a different channel (i.e., "interfering co-channel signals" and "adjacent-channel interfering signals;" Abstract), which can be filtered using a model for "white" noise. A model for "colored" noise can be, for example, the AR filter process recited in Claim 9, which the Examiner has noted is not disclosed by Gardner. Nor does Gardner disclose any other models for "colored" noise. Therefore, whereas Gardner does not teach or suggest the use of a model for "colored" noise, Gardner fails to anticipate claim 1.

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Similarly, Gardner fails to anticipate Claim 24 which includes limitations analogous to Claim 1. In addition, whereas Claims 2-5, 8, 12-14 and 20-23 are dependent from Claim 1 and Claims 25-27 are dependent from Claim 24, and include the limitations of their respective base claim, Claims 2-5, 8, 12-14 and 20-23 are also not anticipated by Gardner. The Applicants, therefore, respectfully request that the Examiner withdraw the rejection of Claims 1-5, 8, 12-14 and 20-27 as being anticipated by Gardner.

5.) Claim Rejections – 35 U.S.C. § 103 (a)

The Examiner rejected Claims 6-7 as being unpatentable over Gardner in view of Liang, *et al.* (US 6314147 B1), and Claims 9-11 and 28-29 as being unpatentable over Gardner in view of Polydoros, *et al.* (US 5432821). The Applicants traverse each of the rejections.

As established *supra*, Gardner fails to anticipate independent Claims 1 and 24. Liang and Polydoros fail to cure the deficiencies of Gardner. Neither of those references, either alone or in combination with Gardner, discloses the invention recited in Claims 1 and 24. Therefore, Claims 1 and 24 are patentable over Gardner in view of Liang or Polydoros. Whereas Claims 6-7, and 9-11 are dependent from Claim 1 and Claims 28-29 are dependent from Claim 24, and include the limitations of their respective base claim, those claims are also patentable over Gardner in view of Liang or Polydoros. The Applicants, therefore, respectfully request that the Examiner withdraw the rejections of Claims 6-7, 9-11 and 28-29.


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CONCLUSION

In view of the foregoing amendments and remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicants, therefore, respectfully request that the Examiner withdraw all objections and issue a Notice of Allowance for Claims 1-29.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



By Roger S. Burleigh
Registration No. 40,542
Ericsson Patent Counsel

Ericsson Inc.
6300 Legacy Drive
M/S 2-C-2
Plano, TX 75024
Phone: 972-583-5799
Fax: 972-583-7864
roger.burleigh@ericsson.com

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